

CLAIMS

1. An electronic device, comprising:

5 a focusable camera assembly; and
 a motor operable between a first mode of operation in which it
provides a vibration feature and a second mode of operation in which it adjusts
the focus of the camera assembly.

10 2. An electronic device as defined in claim 1, wherein the electronic device
comprises a radio communication device.

15 3. An electronic device as defined in claim 1, wherein the focusable camera
assembly further comprises a worm gear and the motor includes a motor shaft that
engages the worm gear when the motor is placed in the second mode of operation.

4. An electronic device as defined in claim 3, further comprising a controller
and the controller sends a signal to the motor that causes the motor shaft to engage
the worm gear.

5. An electronic device as defined in claim 3, wherein the motor shaft has a chamfered end and the worm gear has a chamfered aperture that accepts the motor shaft.

5 6. An electronic device as defined in claim 3, wherein the motor includes a coil that causes the motor shaft to move outward in the second mode of operation.

10 7. An electronic device as defined in claim 6, wherein the motor includes an internal motor assembly and a spring that mechanically loads the internal motor assembly.

8. An electronic device as defined in claim 7, further comprising a counter weight coupled to the motor shaft.

15 9. An electronic device as defined in claim 8, wherein the worm gear mates to a gear found in the camera assembly.

10. An electronic device as defined in claim 1, wherein the motor comprises an electric brush motor.

11. An electronic device as defined in claim 1, wherein the focusable camera assembly includes a fixed camera and an adjustable lens assembly that can be adjusted by the motor.

5 12. An electronic device as defined in claim 11, wherein the motor operates at a first rate of speed when in the first mode of operation and in a second rate of speed when in the second mode of operation and the first rate of speed is higher than the second rate of speed.

13. A method for providing both camera focus and vibration functionality to a radio communication device having a camera, comprising the steps of:

- 5 (a) determining if a vibration mode or a camera focus mode is desired;
 (b) causing a motor to vibrate if the vibration mode is desired in step
 (a); and
 (c) causing the same motor used in step (b) to focus the camera if the
 camera focus mode was desired in step (a).

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14. A method as defined in claim 13, wherein the motor includes a motor shaft and step (c) comprises forcing the motor shaft to extend outward if the camera focus mode was desired in step (a).

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15. A method as defined in claim 14, wherein when the motor shaft is extended outward it mates with a gear that adjusts the camera's focus when the motor shaft is turned.

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16. A method as defined in claim 15, wherein the gear comprises a worm gear that mates with a gear found in the camera.

17. A method as defined in claim 16, wherein the motor shaft has chamfered ends that mate with a keyed aperture found in the worm gear that also has chamfered ends.

5 18. A method as defined in claim 16, wherein the motor shaft has a counter weight coupled to it.

19. A method as defined in claim 13, wherein the radio communication device comprises a cellular telephone.

10 20. A method as defined in claim 13, wherein a controller sends a signal to the motor that causes it to be in the vibration mode or the camera focus mode.